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Another model, also credited to Yakovlev and designated as the Yak-19, is based on the German high-speed experimental type DFS 346. It is said to be capable of supersonic speed. This model is one of the new fighter aircraft which is of typical Soviet construction. It has a slender, almost cylindrical fuselage on which is mounted the cockpit bubble. It has comparatively narrow, sharply swept wings with slight taper, and the tail assembly also has a pronounced sweep. The horizontal tail surfaces are attached to the upper section of an unusually large vertical fin. The air intake is in the nose, the engine is in the midsection of the fuselage, and the exhaust nozzle is in the tail.

Very similar in construction to the Yak-19 are two additional fighter aircraft designed by Lavochkin and Mikoyan and which, therefore, embody the above-mentioned Soviet design features. The Lavochkin La-17 has a thin wing with a 45-degree angle of sweep. The outer wing panels of the La-17 are equipped with automatically controlled slots. The high, parallelogram-shaped vertical fin reportedly has an angle of sweep of 50 degrees, whereas the horizontal tail surfaces have a 40-degree angle of sweep. The arrangement of the horizontal tail surfaces on the upper section of the vertical tail fin requires the rudder to be built in two parts. The main wheels of the tricycle landing gear retract into the side of the fuselage. Also in this model, the power unit is a turbojet of the Chelomey type with an axial compressor. Housed in the bottom part of the nose are two 20-millimeter automatic cannons of the Shvak type. The aircraft is approximately 12 meters long with wing span of 10.9 meters. Provided the engine delivers sufficient power, the La-17 could attain a maximum speed approximately 1,100 kilometers per hour.

The MIG-15, equipped with a copy of the British Rolls Royce Nene turbojet (2,270-kilogram static thrust), could also approximate a maximum speed of 1,100 kilometers per hour by virtue of its aerodynamic design. Its wings have a 40-degree angle of sweep; its large, trapezoidal vertical fin is even said to have a 60-degree angle of sweep. Also in this model the cockpit, equipped with a pilot-ejection seat, is placed far forward so as to assure optimum visibility. The main wheels are retracted into the thin wings, which bulge on the under surfaces because of this. The armament of the MIG-15 reportedly consists of one 30-millimeter and one 20-millimeter automatic cannon, which are mounted on the side of the air intake in the nose.

Certain versions of the aircraft have two tubes, each about 2 meters long, on the side of the nose, the purpose of which is unknown. Possibly these are rocket-launching tubes. However, besides the nose-wheel well, the air duct and the cockpit, there could hardly be sufficient space in the forward area of the fuselage for a magazine for rocket projectiles. On the other hand, it might be possible that the fixtures each contain a recoilless gun, which compensates for the recoil after every shot by emitting a stream of gas to the rear. Experiments conducted during the war on the use of recoilless weapons in aircraft showed that the blast effects of gas expelled to the rear are considerable. These blast effects make it impossible to install weapons which fire in the direction of flight and which emit streams of gas near the skin of the aircraft. If the Soviet fighters were equipped with recoilless weapons, then very considerable reinforcements in the skin of fuselage and wing root would be necessary. The MIG-15 is 12.2 meters long with wing span of 10.8 meters.

A twin-engine fighter which greatly resembles the German Me-262 was designed some time ago by Lavochkin. This fighter, designated as La-8, is a single-place aircraft with a slender fuselage and nonswept wings. The two turbojets are installed in nacelles under the wings and, as with the Me-262, are presumably replaceable, nacelle and all. After this earlier conventional type,

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Lavochkin designed a night fighter of the same class, of very modern design. The new model has thin wings with a 35-degree angle of sweep. Two Chelomey turbojets are installed in large nacelles under the wings. It can be assumed from the size of the nacelles that the turbojets are equipped with afterburners as temporary thrust boosters. The necessary night-fighter radar equipment is located in the long nose of the slender fuselage. In contrast to the western tradition of the two-place night fighter, the Soviet model is a single-place aircraft. The cockpit is located above the wing center section and contains a pilot-ejection seat. The tail assembly, relatively small in comparison with other Soviet models, has a pronounced sweep. The armament of the night fighter reportedly consists of two 13-millimeter machine guns and two 20-millimeter automatic cannons. According to certain sources, rocket launchers will also be mounted in the wing root. The maximum speed of this night fighter is said to approximate 1,050 kilometers per hour. The aircraft is 13.7 meters long with a wing span of 12.5 meters.

These descriptions of the new Soviet fighter planes are incomplete. However, they do prove that the Soviet Air Force should not be underestimated in technical matters. The newest Soviet fighters probably are approximately the equal of corresponding British and US types. In accordance with Soviet tradition, they are, to be sure, somewhat primitive and clumsy in their detailed design. To compensate for this, however, they are being mass-produced.

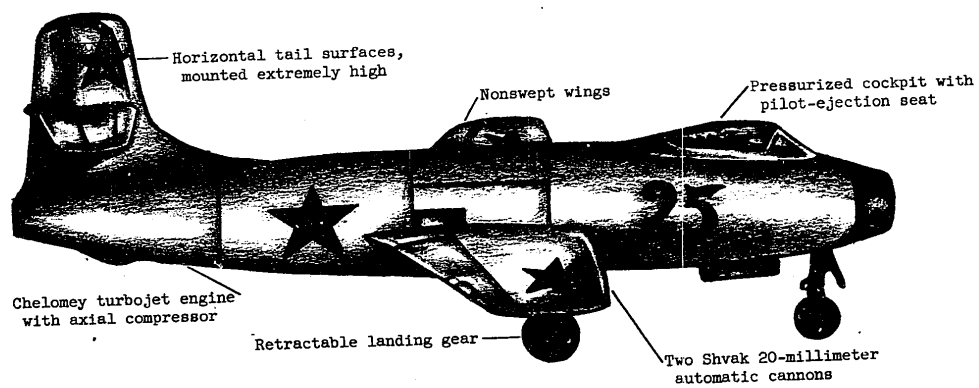
[Figures follow.]

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Figure 1. Yak-17



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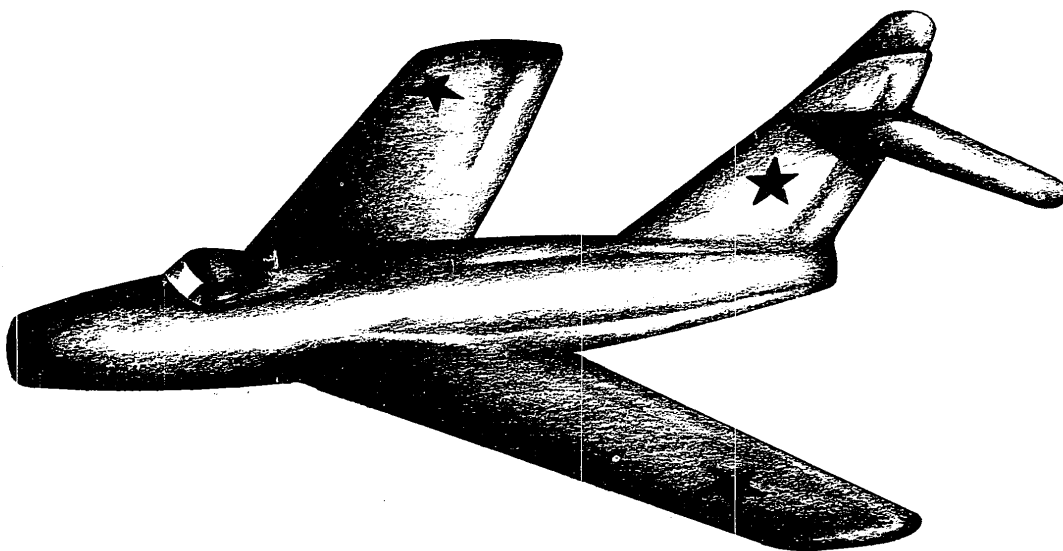
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Figure 2. Yak-19



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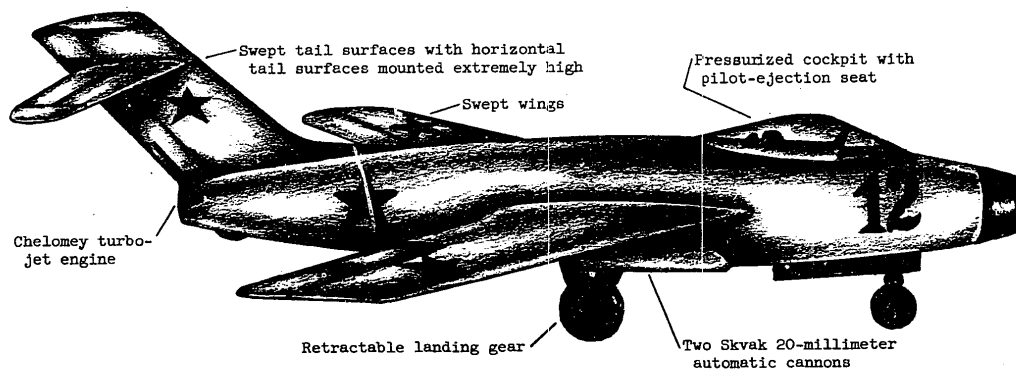
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Figure 3. La-17



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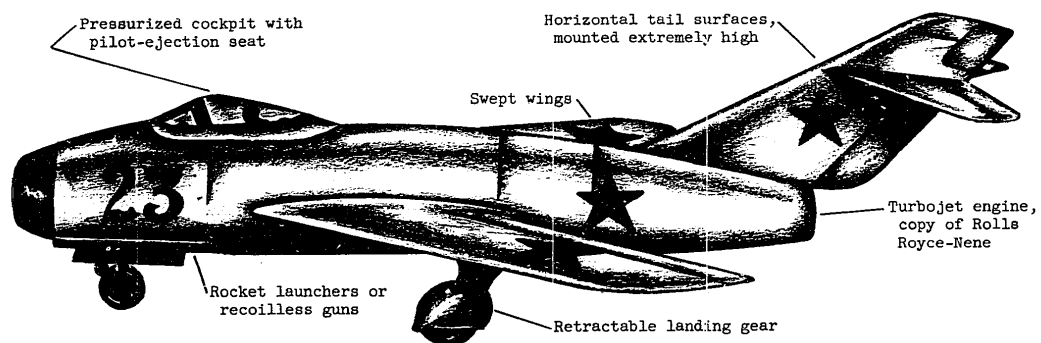
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Figure 4. Mig-15



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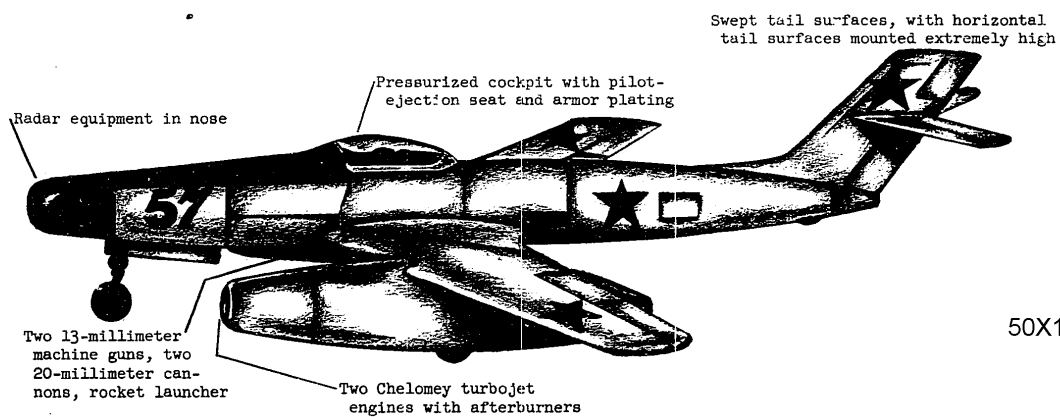
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Figure 5. Lavochkin Night Fighter



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